

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		09735786	
	Filing Date		2000-12-13	
	First Named Inventor	LEONARD GUARENTE		
	Art Unit	1645		
	Examiner Name	ROBERT A ZEMAN		
	Attorney Docket Number	E2023-700030		

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/RAZ/	1	5874210	B1	1999-02-23	GUARENTE ET AL.	
/RAZ/	2	5919618	B1	1999-07-06	GUARENTE ET AL.	

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS						Remove
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/RAZ/	1	20060252076	A1	2006-11-09	GUARENTE ET AL.	
/RAZ/	2	20030207325	A1	2003-11-06	GUARENTE ET AL.	

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS								Remove
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	09735786
Filing Date	2000-12-13
First Named Inventor	LEONARD GUARENTE
Art Unit	1645
Examiner Name	ROBERT A ZEMAN
Attorney Docket Number	E2023-700030

If you wish to add additional Foreign Patent Document citation information please click the Add button [Add](#)

NON-PATENT LITERATURE DOCUMENTS

[Remove](#)

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
/RAZ/	1	GenBank Accession Number: AA105536 (1996).	<input type="checkbox"/>
/RAZ/	2	GenBank Accession Number: AA199012 (1997).	<input type="checkbox"/>
/RAZ/	3	GenBank Accession Number: AA260334 (1997).	<input type="checkbox"/>
/RAZ/	4	GenBank Accession Number: AI465098 (1999).	<input type="checkbox"/>
/RAZ/	5	GenBank Accession Number: AI465820 (1999).	<input type="checkbox"/>
/RAZ/	6	GenBank Accession Number: AI466061 (1999).	<input type="checkbox"/>
/RAZ/	7	APARICIO et al., Modifiers of Position Effect Are Shared Between Telomeric and Silent Mating-Type Loci in <i>S. cerevisiae</i> ; Cell 66: 1279-1287 (1991).	<input type="checkbox"/>
/RAZ/	8	BAKER-BRACHMANN et al., The SIR2 Gene Family, Conserved From Bacteria to Humans, Functions in Silencing, Cell Cycle Progression, and Chromosome Stability; Genes & Development 9(23): 2888-2902 (1995).	<input type="checkbox"/>
/RAZ/	9	BORK, Powers and Pitfalls in Sequence Analysis: The 70% Hurdle; Genome Research 10: 398-400 (2000).	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		09735786
Filing Date		2000-12-13
First Named Inventor	LEONARD GUARENTE	
Art Unit	1645	
Examiner Name	ROBERT A ZEMAN	
Attorney Docket Number	E2023-700030	

/RAZ/	10	BOWIE et al., Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions; Science 247: 1306-1310 (1990).	<input type="checkbox"/>
/RAZ/	11	BRAUNSTEIN et al., Transcriptional Silencing in Yeast is Associated with Reduced Nucleosome Acetylation; Genes & Development 7(4): 592-604 (1993).	<input type="checkbox"/>
/RAZ/	12	BRAUNSTEIN et al., Efficient Transcriptional Silencing in Saccharomyces cerevisiae Requires a Heterochromatin Histone Acetylation Pattern; Molecular & Cellular Biology 16(8): 4349-4356 (1996).	<input type="checkbox"/>
/RAZ/	13	BRYK et al, Transcriptional Silencing of Ty1 Elements in the RDN1 Locus of Yeast; Genes Dev. 11: 255-269 (1997).	<input type="checkbox"/>
/RAZ/	14	de BEUS et al., Yeast NOP2 Encodes an Essential Nucleolar Protein with Homology to a Human Proliferation Marker; J. Cell Biology 127(6) (Part 2): 1799-1813 (1994).	<input type="checkbox"/>
/RAZ/	15	FRYE, Characterization of Five Human cDNAs with Homology to the Yeast SIR2 Gene: Sir2-like Proteins (Sirtuins) Metabolize NAD and May Have Protein ADP-Ribosyltransferase Activity; Biochemical & Biophysical Research Communications 260: 273-279 (1999).	<input type="checkbox"/>
/RAZ/	16	GOTTLIEB and EASTON-ESPOSITO, A New Role for a Yeast Transcriptional Silencer Gene, SIR2, in Regulation of Recombination in Ribosomal DNA; Cell 56: 771-776 (1989).	<input type="checkbox"/>
/RAZ/	17	GOTTA et al., The Clustering of Telomeres and Colocalization with Rap1, Sir3, and Sir4 Proteins in Wild-Type Saccharomyces cerevisiae; J. Cell Biology 134(6): 1349-1363 (1996).	<input type="checkbox"/>
/RAZ/	18	GRUNSTEIN, Yeast Heterochromatin: Regulation of Its Assembly and Inheritance by Histones; Cell 93: 325-328 (1998).	<input type="checkbox"/>
/RAZ/	19	HARDY et al., A RAP1- interacting Protein Involved in Transcriptional Silencing and Telomere Length Regulation; Genes & Development 6: 801-814 (1992).	<input type="checkbox"/>
/RAZ/	20	IVY et al., Cloning and Characterization of Four SIR Genes of Saccharomyces cerevisiae; Molecular and Cellular Biology 6: 688-702 (1986).	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	09735786
Filing Date	2000-12-13
First Named Inventor	LEONARD GUARENTE
Art Unit	1645
Examiner Name	ROBERT A ZEMAN
Attorney Docket Number	E2023-700030

/RAZ/	21	JAMET-VIERNY et al, Senescence in Podospora anserina: Amplification of a Mitochondrial DNA Sequence; Cell 21: 189-194 (1980).	<input type="checkbox"/>
/RAZ/	22	KADOWAKI et al., Nuclear mRNA Accumulation Causes Nucleolar Fragmentation in Yeast mtr2 Mutant; Molecular Biology of the Cell 5: 1253-1263 (1994).	<input type="checkbox"/>
/RAZ/	23	KAEBERLEIN et al., The SIR2/3/4 Complex and SIR2 Alone Promote Longevity in Saccharomyces cerevisiae by Two Different Mechanisms; Genes & Development 13: 2570-2580 (1999).	<input type="checkbox"/>
/RAZ/	24	KARPEN and ALLSHIRE, The Case for Epigenetic Effects on Centromere Identity and Function; Trends Genet 13: 489-496 (1997).	<input type="checkbox"/>
/RAZ/	25	KENNEDY et al., Redistribution of Silencing Proteins from Telomeres to the Nucleolus Is Associated with Extension of Life Span in S. cerevisiae; Cell 89: 381-391 (1997).	<input type="checkbox"/>
/RAZ/	26	MARTIN et al., Relocalization of Telomeric Ku and SIR Proteins in Response to DNA Strand Breaks in Yeast; Cell 97: 621-633 (1999).	<input type="checkbox"/>
/RAZ/	27	MILLS et al., MEC1-Dependent Redistribution of the Sir3 Silencing Protein from Telomeres to DNA Double-Strand Breaks; Cell 97: 609-620 (1999).	<input type="checkbox"/>
/RAZ/	28	MORETTI et al., Evidence that a Complex of SIR Proteins Interacts with the Silencer and Telomere-Binding Protein RAP1; Genes & Development 8:2257-2269 (1994).	<input type="checkbox"/>
/RAZ/	29	OAKES et al., Structural Alterations of the Nucleolus in Mutants of Saccharomyces cerevisiae Defective in RNA Polymerase I; Molecular and Cellular Biology 13(4): 2441-2455 (1993).	<input type="checkbox"/>
/RAZ/	30	PARK et al., Effects of Mutations in DNA Repair Genes on Fomration of Ribosomal DNA Circles and Life Span in Saccharomyces cervisiae; Molecular and Cellular Biology 19(5): 3848-3856 (1999).	<input type="checkbox"/>
/RAZ/	31	PALLADINO et al., SIR3 and SIR4 Proteins Are Required for the Positioning and Integrity of Yeast Telomeres; Cell 75: 543-555 (1993).	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		09735786
Filing Date		2000-12-13
First Named Inventor	LEONARD GUARENTE	
Art Unit	1645	
Examiner Name	ROBERT A ZEMAN	
Attorney Docket Number	E2023-700030	

/RAZ/	32	RINE and HERSKOWITZ, Four Genes Responsible for a Position Effect on Expression From HML and HMR in <i>Saccharomyces cerevisiae</i> ; Genetics 116: 9-22 (1987).	<input type="checkbox"/>
/RAZ/	33	SHERMAN and PILLUS, An Uncertain Silence; Trends Genet. 13: 308-313 (1997).	<input type="checkbox"/>
/RAZ/	34	SHOU et al, Exit from Mitosis is Triggered by Tem1-Dependent Release of the Protein Phosphatase Cdc14 from Nucleolar RENT Complex; Cell 97: 233-244 (1999).	<input type="checkbox"/>
/RAZ/	35	SINCLAIR et al., Accelerated Aging and Nucleolar Fragmentation in Yeast <i>sgs1</i> Mutants; Science 277 (5330): 1313-1316 (1997)	<input type="checkbox"/>
/RAZ/	36	SINCLAIR and GUARENTE, Extrachromosomal rDNA Circles-A Cause of Aging in Yeast; Cell 91: 1033-1042 (1997).	<input type="checkbox"/>
/RAZ/	37	SMITH and BOEKE, An Unusual Form of Transcriptional Silencing in Yeast Ribosomal DNA; Genes and Development 11: 241-254 (1997).	<input type="checkbox"/>
/RAZ/	38	SWEENEY and ZAKIAN, Extrachromosomal Elements Cause a Reduced Division Potential in <i>nib1</i> Strains of <i>Saccharomyces cerevisiae</i> ; Genetics 122: 749-757 (1989).	<input type="checkbox"/>
/RAZ/	39	TANI et al., Nucleolar Accumulation of Poly (A) + RNA in Heat-Shocked Yeast Cells: Implication of Nucleolar Involvement in mRNA Transport; Molecular Biology of the Cell 6: 1515-1534 (1995).	<input type="checkbox"/>
/RAZ/	40	TRIOLO and STERNGLANZ, Role of Interactions Between the Origin Recognition Complex and SIR1 in Transcriptional Silencing; Nature 381: 251-253 (1996).	<input type="checkbox"/>
/RAZ/	41	TSANG and ESCALANTE-SEMERENA, CobB, a New Member fo the SIR2 Family of Eucaryotic Regulatory Proteins, is Required to Compnsate for the Lack of Nicotinate Mononucleotide: 5,6-Dimethylbenzimidazole Phosphoribosyltransferase Activity in <i>cobT</i> Mutants During Cobalamin Biosynthesis in <i>Salmonella typhimurium</i> LT2*; J. Biological Chemistry 273(48): 31788-31794 (1998).	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

Add

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	09735786
Filing Date	2000-12-13
First Named Inventor	LEONARD GUARENTE
Art Unit	1645
Examiner Name	ROBERT A ZEMAN
Attorney Docket Number	E2023-700030

EXAMINER SIGNATURE

Examiner Signature	/Robert Zeman/	Date Considered	09/23/2010
--------------------	----------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.